Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical data transmission system, comprising:

a hub;

a passive kerb location having an optical router and a plurality of optically pumped sources; and

a plurality of optical network units each corresponding to only one of the plurality of optically pumped sources, wherein each optical network unit has a laser for producing data modulated pumping light for transmission to its respective optically pumped source,

wherein each optically pumped source is configured to receive injection light from an injection source outside the passive kerb location and to receive the data modulated pumping light from its respective optical network unit, wherein the optically pumped source is configured to form data modulated transmission light at a predefined wavelength range assigned to its respective optical network unit, wherein the data modulated transmission light is based on the injection light and the data modulated pumping light, and wherein each predefined wavelength range corresponds to a distinct wavelength channel,

wherein the optical router comprises a wavelength division multiplexer (WDM) configured to receive the data modulated transmission light from the plurality of optically pumped sources, and

route the data modulated transmission light to the hub.

2.-3. (Canceled).

4. (Previously Presented) An optical data transmission system according to claim 1, wherein the data modulated pumping light is within a wavelength range which does not include the wavelength or wavelengths of the wavelength channels.

5.–7. (Canceled).

8. (Previously Presented) An optical data transmission system according to claim 1, wherein respective ones of the optical network units are sufficiently similar so that they are interchangeable.

9. (Previously Presented) An optical data transmission system according to claim 1, wherein the optically pumped sources are injection locked lasers configured to receive injection light, and wherein the injection source of the injection light is upstream from the passive kerb location.

10. (Previously Presented) An optical data transmission system according to claim 9, wherein an injection wavelength is selected by at least one of the wavelength division multiplexer-or an arrayed waveguide grating.

11. (Previously Presented) An optical data transmission system according to claim 1, wherein the optically pumped sources comprise external cavity lasers.

12. (Previously Presented) An optical data transmission system according to claim 11, wherein the optical router is within a laser cavity of at least one optically pumped source.

13. (Currently Amended) An optical data transmission system according to claim 1, wherein the data modulated pumping light is at a wavelength different from the wavelength of light used to carry data traffic [[in]] upstream from the passive kerb location and downstream from the hub.

14. (Canceled).

15. (Previously Presented) An optical data transmission system according to claim 1, wherein the optical router comprises an arrayed wavelength grating.

16. (Currently Amended) A method of optically transmitting data, the method comprising:

receiving data modulated pumping light from a plurality of optical network units and receiving injection light from an injection source at a passive kerb location in an optical data transmission system, wherein the passive kerb location comprises a wavelength division multiplexer (WDM) and a plurality of optically pumped sources each assigned only to a single respective optical network unit, wherein each optically pumped source includes a laser cavity configured to select a distinct resonance peak of an incident light, and wherein the optically pumped sources are configured to form data modulated transmission light based on the injection light and the data modulated pumping light;

passively converting the data modulated pumping light from each optical network unit into data modulated transmission light based on the injection light and the data modulated pumping light, wherein each optical network unit is assigned a distinct predefined wavelength range for its data modulated transmission light corresponding to a distinct wavelength channel, and wherein said converting is performed without an intermediate conversion to or from an electrical signal;

receiving the data modulated transmission light at the WDM from the plurality of optically pumped sources; and

routing the data modulated transmission light, using the WDM, via wavelength channels each having distinct predefined wavelength ranges assigned to respective optical network units for transmission to a hub with a passive optical router.

17.–19. (Canceled).

20. (Previously Presented) The optical data transmission system according to claim 1, wherein the optically pumped sources each comprise:

a laser cavity;

one or more mirrors defining the cavity; and

wavelength selective elements inside the cavity.

21. (Previously Presented) The method of transmitting data according to claim 16, further comprising optically pumping, at the passive kerb location, the plurality of optically pumped sources with the plurality of respective data modulated pumping light.

22. (Canceled).

23. (Previously Presented) The method of transmitting data according to claim 16, wherein the data modulated pumping light is within a wavelength range which does not include the wavelength or wavelengths of the wavelength channels.

24.–32. (Canceled).

33. (Previously Presented) An optical data transmission system according to claim 9, wherein the injection light is amplified spontaneous emission noise produced by an upstream preamplifier.

34. (Previously Presented) An optical data transmission system according to claim 11, wherein the external cavity lasers are formed from narrow band reflectors.

35.–42. (Canceled).

43. (Previously Presented) The system of claim 1, wherein the optical router comprises a plurality of upstream/downstream wavelength division multiplexers (WDMs) configured to route different data modulated pumping light to different optically pumped sources and to route different data modulated transmission light to a multiplexing element.

44. (Previously Presented) The system of claim 43, wherein the injection light is split into injection light having different wavelengths, and wherein the plurality of WDMs are further configured to route the injection light having different wavelengths to different optically pumped sources.

45. (Currently Amended) An optical data transmission system comprising:

a hub;

a kerb location having an optical router and a plurality of optically pumped sources; and

a plurality of optical network units each corresponding to one of the plurality of optically pumped sources, wherein each optical network unit has a laser for producing data modulated pumping light for transmission to its respective optically pumped source,

wherein each optically pumped source is configured to receive the data modulated pumping light from its respective optical network unit at a first wavelength different from other wavelengths of the data modulated pumping light received at the other optically pumped sources and to form data modulated transmission light at a predefined wavelength range assigned to its respective optical network unit,

wherein the data modulated transmission light is based on the data modulated pumping light, and

wherein the optical router comprises a wavelength division multiplexer (WDM) configured to receive the data modulated transmission light from the plurality of optically pumped sources and route the data modulated transmission light to the hub.

46. (Previously Presented) The optical data transmission system of claim 45, wherein each predefined wavelength range corresponds to a distinct wavelength channel.

47. (Previously Presented) The optical data transmission system of claim 45, wherein the kerb location is a passive kerb location.

48. (Currently Amended) The optical data transmission system of claim 45, wherein the data modulated pumping light received at each optically pumped source is within a wavelength range which does not include wavelengths of the wavelength channels.

49. (Previously Presented) The optical data transmission system of claim 45, wherein the optically pumped sources comprise external cavity lasers.

50. (Previously Presented) The optical data transmission system of claim 49, wherein the optical router is within a laser cavity of at least one optically pumped source.

51. (Previously Presented) The optical data transmission system of claim 45, wherein the data modulated pumping light is at a wavelength different from a wavelength of light used to carry data traffic upstream from the kerb location and downstream from the hub.

52. (Previously Presented) The optical data transmission system of claim 45, wherein the optical router comprises an arrayed wavelength grating.

53. (Currently Amended) A method of optically transmitting data, the method comprising:

receiving data modulated pumping light from a plurality of optical network units at a kerb location in an optical data transmission system, wherein the kerb location comprises a wavelength division multiplexer (WDM) and a plurality of optically pumped sources each assigned to a respective optical network unit, wherein a first optically pumped source is configured to receive the data modulated pumping light at a wavelength different from other wavelengths of data modulated pumping light received at the other optically pumped sources, and wherein the optically pumped sources are configured to form data modulated transmission light based on the data modulated pumping light;

passively converting the data modulated pumping light from each optical network unit into data modulated transmission light, wherein each optical network unit is assigned a distinct predefined wavelength range for its data modulated transmission light corresponding to a distinct wavelength channel;

receiving the data modulated transmission light at the WDM from the plurality of optically pumped sources; and

routing, using the WDM, the data modulated transmission light for transmission to a hub based on the respective distinct wavelength channels.

54. (Previously Presented) The method of claim 53, wherein each optically pumped source includes a laser cavity configured to select a distinct resonance peak of an incident light.

55. (Previously Presented) The method of claim 53, wherein said passively converting the data modulated pumping light is performed without an intermediate conversion to or from an electrical signal.

56. (Previously Presented) The method of claim 53, further comprising optically pumping, at the passive kerb location, the plurality of optically pumped sources with respective data modulated pumping light.

57. (Previously Presented) The method of claim 53, wherein the data modulated pumping light is within a wavelength range that does not include wavelengths of the respective distinct wavelength channels.

58. (Previously Presented) The method of claim 53, wherein the kerb location is a passive kerb location.

59. (Previously Presented) The method of claim 53, wherein the data modulated pumping light is at a wavelength different from a wavelength of light used to carry data traffic upstream from the kerb location and downstream from the hub.